Navy Offers At-Sea Sonar Demonstration

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ABOARD THE *USS NITZE* — The U.S. Navy opened its hatches, figuratively speaking, Wednesday to allow representatives of North Carolina's fishing and marine research industries a behind-the-scenes look at training and operations for undersea warfare aboard the *USS Nitze, DDG 94*. (Lockwood Phillips photo)

By Lockwood Phillips

ABOARD THE USS NITZE - The U.S. Navy opened its hatches, figuratively speaking, Wednesday to allow representatives of North Carolina's fishing and marine research industries a behind-the-scenes look at training and operations for undersea warfare aboard the USS Nitze, DDG 94.

Jim Brantley, public affairs representative with the U.S. Navy's Officer Fleet Forces Command, said the event was a way to provide a better understanding of antisubmarine warfare training needs and procedures to stakeholders who have expressed concern about the Navy's proposed Undersea Warfare Training Range (USWTR) 50 miles off the Carteret County coastline.

Thirty-five local and state representatives got a fast ride aboard the newly commissioned Arleigh Burke Class guided missile destroyer USS Nitze to the proposed training site, where they observed an active sonar procedure and participated in a question-and answer session with officers and naval research personnel.

The ocean training range, an approximately 20- by 25-nautical mile rectangle, is proposed for an area 49 nautical miles southeast of Bogue Banks.

Because the training range will involve numerous naval ship events, including active and passive sonar training - all of which will be recorded by an underwater grid of hydrophones in the sea bottom - coastal residents, along with representatives of the commercial and sports fishing industry and environmental groups, have expressed opposition to the plan.

Once the 508-foot warship was under way, the ship's captain, Cmdr. Michael Hegarty, announced guests would be given unfettered access to all spaces, including those normally kept secure, and could speak with any naval personnel about their jobs. He even allowed local and state media representatives to tape and photograph any activities in those secure spaces.

"We wanted to remove any doubt about our operations for the guests," Mr. Brantley explained.

For seven hours, the guests toured the guided missile destroyer, watching sea and anchor activities as the ship got under way. During the transit to the USWTR area, they toured the primary spaces

that would be involved in antisubmarine warfare exercises and got explanations of each department's role in the exercise.

Most of the day's activities centered on the ships bridge, its Combat Information Center and the small, eight-man Anti Submarine Warfare (ASW) command center far forward, below decks.

Once the ship entered the approximate center of the range a little before noon, personnel activated the sonar to demonstrate just what takes place and to allow the guests to hear a sonar ping from a hydrophone onboard the ship.

Three pings were planned but only two took place as the third exercise was canceled once dolphins were sighted near the ship. Navy regulations require all active sonar operations to cease if marine mammal are detected within 350 yards of the ship.

Throughout the day the civilian guests were reminded that antisubmarine warfare has taken a new twist that requires a new form and more intense training program.

According to the weapons specialists aboard the USS Nitze, the development and easy access of modern diesel submarines with newly designed batteries and air propulsion technology creates a totally new threat for the United States and allies.

Because the new, smaller submarines operate in shallow waters, similar to the area identified for the training range, the sonar personnel face additional noise issues from the reflection of sonar sounds, other boat traffic and changing water temperatures that can create layers to alter the return sonar signals.

Pointing to a computer display of four columns of green blips, Lt. Henry Allen, the ship's operations officer, explained that somewhere in the columns could be an indication of a submarine, but it takes hours of training in comparative readings to distinguish an active contact.

The new challenges for antisubmarine warfare has increased the need for intense antisubmarine warfare training with quick response times to give the sonar weapons crews better grading of their knowledge. But time for active sonar training has been difficult for the crew of the USS Nitze because of restrictions and space for training.

The weapons and sonar personnel stressed that procedures required to protect all mammals include avoidance actions or cessation of the exercise. The appearance of dolphins after the second sonar test precluded other events for the day.

Before any active training, including gun shoots, is initiated, the ship is required to do a major review or Preventive Measures Assessment Protocol (PMAC), using scientific research data on migratory species that might be in the area. In addition, an extensive visual and electronic search is conducted to assure that no marine mammals are present.

"While we were transiting from New Orleans (where the ship participated in Mardi Gras), our lookouts spotted what appeared to be a plume of water indicating a possible whale sighting," Cmdr Hegarty explained. "We slowed our speed to determine if a course correction was in order but the ship's sonar identified the contact as porpoises, based on the bleeps heard on the ship's passive sonar system.

But these restrictions have hampered the ability of the ship's sonar technicians and surface warfare crew to conduct meaningful training exercises.

In the past year, according to the ship's operations officer, the sonar has been operated only three times in active mode, in which a medium frequency signal is pulsed to make contact with an unknown object such as a submarine.

"This is just not an acceptable training routine for our crew," Lt. Allen stated.

The three times the sonar operated in active mode, Lt. Allen said, were during the ship's construction, during sea trials for final acceptance by the Navy and then Tuesday to make sure the equipment would be operable for Wednesday's demonstration.

Remarking on the potential of the training range, Lt. Allen stated, "This will be big benefit for the crew. It will give us immediate feedback and provide better unit training."

After the sonar exercise, the ship's officers and naval research personnel met with the visitors for a question-and-answer period. Cmdr. Hegarty stressed the need to provide quality training operations so his ship and crew could prosecute any submarine threat.

According to Jene Nissen, an engineer with the Navy Acoustic Policy Development office, training in the USWTR is expected to involve 161 events annually, about the same number as being currently conducted along the East Coast.

In response to a question, Mr. Nissen told Randy Ramsey of Jarrett Bay Yacht Sales that boats will not be denied access to training area during exercises, and that training will be scheduled to avoid sport fishing events, such as the Big Rock Blue Marlin Tournament.

Responding to questions about the impact of sonar on sea life, David Noble, a biologist with Naval Facilities Engineering Command, said the effects on marine mammals are known but that work still needs to be done on the impact on finfish. He said studies may be conducted on fish populations in the training range now in operation off the Southern California coast.

The visitors' overall opinion of the day's demonstration was generally positive.

Mr. Ramsey said he gained a new appreciation of the Navy's mission and the difficulties associated with antisubmarine warfare. While still concerned about the lack of data on the affects of sonar on finfish, he expressed relief that the proposed training area will not be closed to sport and commercial fishing.

"I was very impressed with professionalism of the crew," he said, "and the safety procedures they took to avoid any impact on sea life".

Dr. Louis Daniel, chief biologist for the N.C. Division of Marine Fisheries, said he was very impressed with the sincere effort on the part of the Navy to answer all the questions being raised in public hearings.

"I've heard their presentation three times now, and each time they have incorporated the questions from previous meetings" he said. This, he noted, is an indication that the Navy is taking the issues seriously.

The one concern Dr. Daniel expressed after the demonstration was a need to know the impact on resident fish stocks in the area as opposed to the concern for the migratory fish.

He added that the ship's crew has "a daunting task" to maintain its preparedness and said he gained a new appreciation for their mission.